

ABSTRACT

A nanowire (100) according to the present invention includes a plurality of contact regions (10a, 10b) and at least one channel region (12), which is connected to the contact regions (10a, 10b). The channel region (12) is made of a first semiconductor material and the surface of the channel region (12) is covered with an insulating layer that has been formed selectively on the channel region (12). The contact regions (10a, 10b) are made of a second semiconductor material, which is different from the first semiconductor material for the channel region (12), and at least the surface of the contact regions (10a, 10b) includes a conductive portion.